

An investigation into the character of the pathogenic micro-organisms found in the tympana of sucklings showed them to be much the same in the serous and in the suppurative inflammations and to correspond in the main to the micro-organisms found in the nasopharynx. The most frequent was the diplococcus pneumoniae accompanied by the staphylococcus pyogenes albus.

Streptococci were found only in the more severe forms of suppurative otitis and were accompanied by perforation of the drum-head; the same micro-organisms, with exception of streptococci, were also found in cases where the tympanic mucous membrane was in normal condition.

The frequency of suppurative middle-ear disease in infants is explainable by the peculiar anatomical and histological conditions of the tympanopharyngeal tube and tympanic cavity; the tube is short, exceedingly patent, nearly horizontal in its course, and closely approximates the posterior border of the hard palate by its pharyngeal end, its long axis forming an obtuse angle with the long axis of the inferior nasal chamber; the mucous membrane of the tympanum is vascular, soft, and delicate, largely lacking in fibrous connective and rich in glandular tissue.

These conditions serve to favor the passage through the tube and into the middle ear of nasal mucous sputa and vomitus and render the tympanic mucous membrane less resistant than in the adult, while the existence of adenoids in 41.9 per cent. of the observed cases of suppurative middle-ear disease in infants offers another explanation, through their interference with normal function, for the frequency of this disease in infants.

Aural Causation of Nystagmus.—BAVANY (*Ophthalmologische Gesellschaft*, Vienna, June, 1905), as the result of experiments made by forcible syringing of the ears in cases of normal ears of various forms of middle-ear disease and of deaf-mutes, the author arrives at the following conclusions:

1. Syringing with water below the body temperature induced a purely rotatory nystagmus directed toward the opposite side and most marked when the sight was directed toward the side opposite to that of the ear syringed. Syringing with water above the body temperature educed a rotatory nystagmus toward the side syringed and most marked when the sight was turned in a corresponding direction. With the head inclined toward the side opposite to the ear syringed, a horizontal nystagmus was educed toward the side syringed when cold and toward the opposite side when warm water was used, the horizontal nystagmus, in either direction, changing to a rotatory nystagmus when the head resumed the erect position or was inclined toward the side syringed.

2. Syringing with water at the body temperature had no effect in the production of nystagmus.

3. In cases of intact drum-head a longer period of syringing was requisite for the production of the ocular symptoms and greater variations in temperature of the water from the normal body mean than in cases of perforation of the drum-head, which exposed the outer labyrinth wall to the direct influence of the change in temperature; a difference of 1° C. above or below, the normal being sufficient in the latter instance to induce the ocular symptoms.

4. In cases in which the function of the semicircular canals was otherwise demonstrable as wanting, reflex symptoms were not induced by the changes in temperature.

5. The nystagmus was, in the majority of all the cases observed, accompanied by dizziness and loss of balance and sometimes by malaise, nausea, vomiting, and insensibility of short duration.

6. In the more marked instances of disturbance of balance the sensation of movement and the direction of loss of balance corresponded, in the majority, to the symptoms evidenced in disease of the vestibular apparatus.

The Effect of Radium Bromide upon the Labyrinth.—EWALD (*Zentralblatt für Physiologie*, 1905, No. 10), in these experiments upon pigeons, used a small glass bulb, 2 mm. in diameter, containing about 3 mg. of radium bromide, introduced through a small opening in the skull and so placed as to approximate the labyrinth without coming into contact with it. The glass bulb was allowed to remain in place for several hours and then removed and the operative field protected; the results of the experiment widening themselves several days later, in typical labyrinth symptoms proportionate, in time of their onset and in their severity, to the duration of exposure to the influence of the radium and finally becoming constant.

Control experiments, made with empty glass bulbs, under the same operative conditions, satisfactorily demonstrated the fact that the symptoms educed were due to the influence of the radium, the complex of symptoms in the cases in which the radium was used presenting the typical disturbances of orientation characteristic in removal of the labyrinth.

Cases of Erysipelas in the Warschauer-Ujazdow Military Hospital in a Period of Ten Years.—V. MAXMOWITSCH (*Archiv für klin. Medizin*, Bd. lxxxiii.) states that in no less than 29 per cent. of the observed cases the erysipelas appeared as a complication of aural disease, and that the bacteriologic examination of the air in the various wards showed a preponderance of the staphylococcus pyogenes aureus in the aural department only.

The majority of the cases occurred in the winter and early spring months; 17.5 per cent. in March and 1.5 per cent. in September, for instance.

The Treatment of Suppurative Middle-ear Disease by Means of Compression Hyperæmia.—W. KEPPLER (*Zeitschrift für Ohrenheilkunde*, Bd. l., Heft 3), encouraged by the favorable reports of the results of the application of pressure hyperæmia in cases of suppurative processes in the extremities, applied this method to the treatment of similar conditions in the head, and especially in the ear, using as a compression apparatus a woven elastic rubber band from 2 to 3 cm. in width, beset with hooks and eyelets, to facilitate varying degrees of pressure, the maximum being indicated by the production of a reddish-blue swelling of the superficial enclosed area, and in some cases of mastoid complication, of a deep red, postaural cedema. The duration of the applied pressure was from twenty to twenty-two hours, with a